In the Abstract

Please amend the abstract beginning on page 36, line 2 as

follows:

A method for calculating and recalculating hardware

requirements for a database management system computer. One

method includes establishing default values for hardware

utilization limits such as percent utilization of processors or

network interface cards. Working copies of the hardware

utilization limits can be initialized to the default utilization

limits. Workload requirements can be obtained from a human

user. In one method, the workload requirements are obtained as

transactions per second value. In another embodiment, the

workload requirements are obtained as a detailed list of

transactions, expected execution rate of those transactions, and

the composition of those transactions, including SQL statement

type and parameters upon which those statements operate. The

hardware requirements are then calculated so as to be within the

hardware utilization limits, and can include discrete numbers of

required hardware components such as processors and network

interface cards.

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revised abstract
W. E. D.

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Discussion

The Examiner suggested that the present title "Built in Headroom for an NT System Sizer" be changed to "Built in Headroom for a Preemptive Multitasking Operating System Sizer."

The title is amended as the Examiner suggested.

The Examiner reminded the Applicants of the proper language and format for an abstract of the disclosure. The Examiner said that the abstract should be in narrative form and generally limited to a single paragraph on a separate sheet with the range of 50 to 150 words. The present abstract has been in narrative form and limited to a single paragraph. However, it is about 183 words. The abstract is amended to be at least 50 words but less than 150 words. The Examiner noted that form and legal phraseology such as "means" and "said" should be avoided. The present abstract has avoided such terms. The Examiner indicated that the abstract should sufficiently assist readers in deciding whether there is a need for consulting the full patent text for details. In that regard, the present abstract appears to be sufficient. The Examiner said that the language of the abstract should be clear and concise and should not repeat information given in the title. The present abstract appears to have satisfied these requirements. The Examiner added that it should

avoid rising phrases which can be implied, such as, "The

disclosure concerns", "The disclosure defined by the invention",

"The disclosure describes", etc. The present abstract has

avoided such phrases.

The Examiner rejected claim 1 under 35 USC §103(a) as being

patentable over DeLuca et al., (U.S. Patent 5,848,270),

Litzenberger (U.S. Patent 5, 870,460) and Shannon et al. (U.S.

Patent 6,088,678). The Examiner indicated that DeLuca rendered

claim 1 obvious by the following:

A. "providing one or more percent. . .utilization. . ." at
   col. 12, lines 6-10.
B. ". . .hardware. . ." col. 5, lines 30-33.
C. "while remaining within the present. . .utilization
   limits. . ." at col. 12, lines 6-10.
D. ". . .hardware. . ." at col. 5, lines 30-33.
E. ". . .hardware. . ." at col. 5, lines 30-33.

with the above terms underlined, claim 1 states:

The exerpts noted above from DeLuca labeled with letters

and the sentences from DeLuca are that the terms are from are

restated here. The above noted terms are underlined,

respectively.

Relative to (A) and (C), Column 12, lines 5-10 state:

"However, because the present invention limits the actual

utilization to less than 75 percent for each CPU, four of the

existing CPUs each operating at a 75 percent utilization are

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required to perform the workload." In the last response to a previous office action, the Applicants stated, "DeLuca et al. teach a limit of utilization away from claim 1 which refers to a minimum of utilization of one or more percent. According to claim 1, utilization could be greater than 75 percent." In response, the Examiner said, "The language in independent claim 1 provides a one or more percent limit on the percent utilization of the system. A utilization of less than 75 percent clearly is greater than one percent." The Applicants respectfully contend that if the limit of utilization were one-half percent, this limit would be consistent with a utilization of less than 75 percent, but yet not appear consistent with the noted limitation of claim 1 of one or more percent. It seems that something less than 75 percent does not necessarily mean that it must be greater than one percent. For example, one-half percent is "less than 75 percent" but seems not one or more percent.

The Examiner stated that DeLuca does not teach the use of throughput workload requirements and calculating the required resources. However, the Examiner indicated that Litzenberger teaches the use of throughput workload requirements in the following:

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". . .obtaining throughput. . ., requirements. . ." col. 2, lines 4-8.

". . .needed to satisfy the . . .requirements. . ." col. 3, lines 4-8.

". . .workload. . ." at col. 3, lines 27-29.

The statement of lines 4-8 of col. 2 is: "As the long distance carriers constantly strive to provide more enhanced intelligent networking technologies and services, projections show that the throughput requirements will grow much faster than the processing capabilities of the network." The sentence in lines 27-29 of col. 3 is: "As stated above, the round-robin selection distributes workload across the data links 101, 103, 101", 103", 101Δ, and 103Δ evenly." Litzenberger relates to a system for the least cost routing of data transactions in a telecommunications network. The purpose for obtaining throughput requirements in Litzenberger is different then that of the present invention. Likewise, for "workload requirements" here is that there is a determination of workload requirements for sizing, and in Litzenberger, the workload is for even distribution across the links. In a response to previous office action, it was stated that the Applicant would not have considered this patent as analogous art. In response, the Examiner states that the two teachings by Litzenberger relate to

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the use of "throughput requirements" and "workload" usage. The

Examiner added that combining these two teachings strongly

suggest the use of "throughput workload requirements". It seems

that there should be instead a suggestion or motivation for

combining Litzenberger with DeLuca.

The Examiner noted that Litzenberger does not teach

calculation the required resources; however, that Shannon does

teach it, as in the following:

> ". . .calculating the. . .resources. . ."at col. 1, lines
> 66-67 and col. 2, lines 1-6.

The statement from these lines is: "To meet the above and

other objectives, the present invention provides for an improved

computer-implemented process simulation method or tool that uses

a software engine that calculates resources required to complete

a project based upon contents of user-defined benefit-trade

matrices associated with substeps of the project and design

requirement priority values and a sample design whose process is

to be simulated." Shannon appears to pertain to a process

simulation technique using benefit-trade matrices to estimate

schedule, cost, and risk. Also, the Examiner said that it would

have been obvious to one ordinarily skilled in the art at the

time of the invention to calculate the hardware resources

required for a system in order to estimate the cost of hardware

upgrades. The present application talks about hardware

resources and Shannon refers resources, including people, tools

and machines, for accomplishing a substep of designing and

building a computer system. There appears to be a difference in

meanings of the term "resources" in Shannon and the present

application. The Examiner countered the Applicants by quoting

Shannon in the following:

> ". . .To meet the above and other objective, the
> present invention provides for an improved
> computer-implemented process simulation method or
> tool that uses a software engine that calculates
> resources required to complete a project based
> upon substeps of the project and design
> requirement priority values and a sample design
> whose process is to be simulated. . ." at col. 1,
> lines 66-67 and col. 2, lines 1-6.

> ". . .The present invention will be described in
> terms of simulating a process for designing,
> building and testing a system that has hardware
> and software components, such as is required to
> build a computer system, for example. . ." at
> col. 3, lines 30-34.

The Examiner said that it is clear, that by combining these

two teachings by Shannon that resources could also include

hardware and software as well as the explicitly named resources

of people, tools and machines. It seems that the two parts of

Shannon were combined to broaden the meaning of the term

"resources" within Shannon, which is beyond the breadth of the meaning of the term in the present invention.

It seems incorrect to the Applicant that one may find a reference and extract words from it appearing to replicate a portion of an element of a claim without regard to the context of the words, without clearly stating the suggestion or motivation for combining the reference, and yet state that it would be obvious to one ordinarily skilled in the art at the time of the invention to do what is indicated by the extracted words in combination with other portions of the element similarly extracted from other references combined in the same fashion to support with that element a rejection of the claim.

Claim 16 was rejected under 35 U.S.C. 103(a) as being unpatentable over Coss et al. (U.S. Patent No. 5,538,423), Deluca, Shannon, Litzenberger and Kulkarni.

In paragraph 33, the Examiner indicated that the Applicants stated, "Coss et al. pertain to an apparatus for controlling operational parameters of a surgical drilling system. The Applicants believe that this art is non-analogous." In response, the Examiner said that Coss contains many elements that could be used for sizing an operation system. These elements include the use of hardware, the use of software, the

use of computer memory, the use of tests, the use of

comparisons, the use of data, the use of tables, and the use of

values. This may be true; however, Coss et al. do not relate to

sizing. If there need not be a reference to sizing, then a

myriad of art having even a remote reference to computing may

disclose such elements that could be used for sizing an

operation, and thus all such art would consequently be

considered analogous. Then the question may be what the basis

was for selecting Coss et al. over other like art.

In paragraph 34, the Examiner indicated that the Applicants

stated, "The Applicant does not see the suggestion or motivation

above for the combination of Coss et al., Deluca et al.,

Shannon, Litzenberger and Kulkami et al., used to reject claim

16." Although not explicitly addressing the Applicant's

concern, the Examiner responded by indicating that Coss, Deluca,

Shannon, Litzenberger, and Kulkami share many elements in

common. (1) Coss, Deluca, Shannon, Litzenberger, and Kulkami

teach the use of data and the use of computer memory, (2) Coss,

Deluca, Shannon, and Litzenberger teach the use of values and

the use of estimates and comparisons, (3) Coss, Deluca, and

Shannon, Litzenberger, and Kulkami teach the use of tables, (4)

Coss, Deluca, and Shannon teach the use of testing or simulation

and the use of user inputs, and (5) Shannon, Litzenberger, and

Kulkami teach the use of databases and the use of transactions.

The elements in common of various cited references such as,

for example, the use of data and the use of computer memory are

relatively high level elements for combining patents for

rejecting a patent having elements or portions thereof that are

arguably disclosed in these patents. To say that if a certain

element of a claim is looked for in the art, one need only to

find any patent that discloses a use of data and a use of

computer memory. Likewise, the use of values and the use of

estimates and comparisons, the use of tables, the use of testing

or simulation and the use of user inputs, the use of databases

and the use of transactions appear to be matters that are of a

relatively high level and may be found in a large amount of art

even though the apparent subject matter of the art may seem

quite remote from sizing in the present invention. Even in

spite of the apparent commonality of items mentioned in the

various cited art, the Examiner's response seems to be an

argument for showing the presently cited patents as being

analogous art. The response doesn't seem to the Applicants to

be the suggestion or motivation for the combination of the

patents used in the obviousness rejection of the claims.

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If one were to search the patent database back to 1976,

with an assumption that the patents to be cited are somehow

related to computers and that the common elements that allegedly

justified the combining the cited patents were search terms, the

results for the various combinations of the taught elements

would be rather large. "Computer" should be an included term to

prevent absurd results. The numbers in parentheses correspond

to the respective combining of patents with common elements

above. For examples, searching: (1) the common elements of

data, computer memory and computer may result in 17,239 patents;

(2) the common elements of values, estimates, comparisons and

computer may result in 1500 patents; (3) the common elements of

tables and computer may result in 47,560 patents; (4) the common

elements of testing or simulation, user inputs and computer may

result in 1322 patents; and (5) the common elements of

databases, transactions and computer may result in 4600 patents.

Then with the elements at a high level abstraction, a question

may be what the criteria are for selecting the specific patents.

One might say that the "use of" may be needed to more

accurately reflect the elements. First, it is implicit that the

elements being mentioned are being used, if disclosed in the

reference. Second, search on the "use of something", even if

"something" is in the art being searched, does not appear to work. For example, the element in common for combining the teachings of Coss, DeLuca, Shannon, Litzenberger and Kulkami, the "use of tables" would result in zero patents whereas "user tables" may result in 64 patents, which is still a high number of patents to have such a common element. With the term computer added as a common element with "user tables", the search may result in 56 patents. A more restrictive term "table usage" may result in 50 patents. Use of something may be expressed in numerous ways, so a search with the terms "something usage" and "user something" would miss many patents relating to the use of "something". Searching about the use of an element would require a large variety of search terms in various arrangements to find a significant portion of patents expressing use of a particular element. Thus, the commonality of elements, as indicated above, may result in very many patents. So perhaps one might use another basis for a combining of teachings of several patents such as clear motivation or suggestion in the art, as noted in a previous response by the Applicant which is incorporated by reference here.

The rejection of claim 1 under 35 USC §103(a) as being patentable over DeLuca et al., Litzenberger and Shannon et al.

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and the rejection of claim 16 under 35·U.S.C. 103(a) as being

unpatentable over Coss et al., DeLuca, Shannon, Litzenberger and

Kulkarni, seem to be based on words or phrases picked out of the

various references to fit the template of the invention without

the necessary motivation or suggestion to make the claimed

invention. This also appeared to be the approach relative to

the rejected dependent claims. In *Bausch & Lomb, Inc. v.*

Barnes-Hind/Hydrocurve, Inc., 230 USPQ 416 (Fed. Cir. 1986),

cert denied, 484 US 823 (1987), on remand, 10 USPQ2d 1929 (N.D.

Calif. 1989), the Federal Circuit held that a single line in a

prior art reference should not be taken out of context and

relied upon with the benefit of hindsight to show obviousness.

Rather, a reference should be considered as a whole, and

portions arguing against or teaching away from the claimed

invention must be considered. The court has also ruled that "it

is impermissible within the framework of section 103 to pick and

choose from any one reference only so much of it as will support

a given position, to the exclusion of other parts necessary to

the full appreciation of what such reference fairly suggests to

one of ordinary skill in the art. *In re Wesslau*, 147 USPQ 391,

at 393 (CCPA 1965).

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After reviewing the Examiner's rejections, it appears that the Examiner is using the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. The court has frequently indicated, however, that "'[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention.' (quoting *In re Fine*, 837 F.2d 1071, 1075, 5 USPQ 2d 1596, 1600 (Fed. Cir. 1988)." *In re Fritch*, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992). Other cited information of a previous amendment in the present application is incorporated herein by reference. Since no art cited against claims 1 and 16 appears to provide suggestion or motivation for making the claimed combination 35 U.S.C 103(a), the Applicant believes that claims 1 and 16 are patentable over the cited art. The Applicant believes that the same applies to the dependent claims rejected under 35 U.S.C. 103(a).

Reconsideration and allowance of the pending claims are very respectfully requested. The Applicants' representative would appreciate it if the Examiner would care to call him
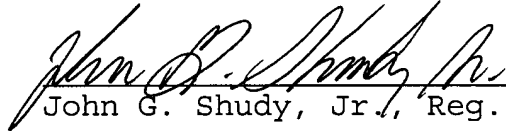
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(direct number: 612/333-1847) to discuss the present

application.

Respectfully submitted,

John Quernemoen et al.

By their attorney:

Date: 2/12/03

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